## REMARKS

### THE AMENDMENTS

Applicants amend claim 49, 50, and 53 through 55, and add new claims 57 through 68. Claim amendments add no new subject matter, and are fully supported throughout the specification and by the drawings and claims as filed. Support and reasoning for the amendments are provided below.

Support for New Claims and Reasons for Amendments

These amendments are made to clarify the claims in order to expedite allowance of the present application.

Support for amendments are found throughout the specification, for example, on page 46 line 21 through page 47 line 1:

> The present invention also includes a method for manipulating magnetic particles or magnetizable particles. This method includes the steps of: providing an electromagnetic chip comprising a plurality of individually addressable micro-electromagnetic units; placing magnetic particles or magnetizable particles onto an exposed surface on or within said electromagnetic chip; and modulating electric currents applied to one or more of said micro-electromagnetic units so as to change the magnetic field distribution over the surface of said electromagnetic chip, thereby altering magnetic forces acting on said magnetic particles or magentizable particles. The result of this process is that the magnetic particles or magnetizable particles are moved to or from a locus, preferably a defined locus.

For example on page 19 lines 9-13:

> An "electromagentic chip" is a chip that includes at least one electromagnetic unit, such as a micro-electromagnetic unit. The electromagnetic unit can be on the surface of a chip, or can be provided integrally or at least partially integrally, within said chip. For example, an electromagnetic unit can be provided on the surface of a chip or can be imbedded within a chip. Optionally, an electromagnetic unit can be partially imbedded within a chip.

For example on page 27 line 21 through page 28 line 3:

> The micro-electromagnetic units are localized in any appropriate configuration based on the desired fields to be produced thereby and the intended use of the chip. The micro-electromagnetic units can be provided on the surface of the substrate, partially imbedded within the substrate or provided imbedded within the substrate. Optionally, an additional layer of material can be provided on top of the substrate in order to protect the micro-electromagnetic units or to provide structures that allow for the immobilization of materials, such as moieties.
>
> The micro-electromagnetic units can be provided individually in any appropriate orientation, such as vertical, substantially vertical, horizontal or substantially horizontal. Such structures can be made using the methods described herein.

**SPECIFICATION**

The Examiner has objected to the disclosure and alleges that Applicants refer to magentophoresis *[sic.]*, magnetophoresis, and magentophoretic *[sic.]* without clarification. Applicants have amended the disclosure to correct the relevant misspelled words.

**CLAIMS ARE DEFINITE UNDER 35USC §112, SECOND PARAGRAPH**

The Examiner rejects claims 50, 51, 54, and 55 under 35 USC §112, Second Paragraph for allegedly being indefinite. The Examiner alleges that claim 50 and 51 are unclear because the word "optionally" in claim 51 makes the claims unclear as to what is the required limitation. The Examiner also alleges that claim 54 is unclear because it refers "particle switch" which is unclear. The Examiner also alleges that claim 55 is unclear because of the word "optionally" makes the claims unclear as to the required limitation.

Applicants respectfully disagree with the Examiner and submit that the claims are clear and definite under 35 USC §112, Second Paragraph as written. However, to expedite allowance of claims, Applicants have amended claim 49, 50, and 53 through 55 to more clearly claim the invention.

**CLAIMS ARE NOVEL UNDER 35 USC §102**

Applicants' claimed invention is novel over the references prior to amendments. To expedite the allowance of the application, however, Applicants have amended claims to more clearly claim the invention. Applicants do so without prejudice to pursuing the original claims in another application. Applicants respectfully request that these rejections be withdrawn for the reasons set forth below.

The Examiner alleges that claims 49-52, 55, and 56 are anticipated under 35 U.S.C. § 102(b) by Cabelli (U.S. Patent No. 5,814,376). The Cabelli reference does not anticipate the claimed invention. The amended claims recite, *inter alia*, moving the magnetic particles from a first locus on the electromagnetic chip to a second locus on the electromagnetic chip. The Cabelli reference does not report a method having the step of moving the magnetic particles from a first locus on the electromagnetic chip to a second locus on the electromagnetic chip as claimed by the Applicants. Accordingly, the Cabelli reference does not anticipate the claimed invention.

For the foregoing reasons, Applicants submit that the amended claims cannot be anticipated by the Cabelli reference under 35 U.S.C. § 102(b). Accordingly, Applicants respectfully request that this rejection be withdrawn.

**CLAIMS ARE NON-OBVIOUS UNDER 35 USC §103**

The Examiner has rejected claim 53 under 35 USC §103(a) as allegedly being unpatentable over Cabelli (U.S. Patent No. 5,814,376), in view of Chalmers et al. (J. Magnetism and Magnetic Materials, 194, p. 231-241, 1999) Applicants' claimed invention is non-obvious over the cited reference prior to amendment. To expedite the allowance of the application, however, Applicants have amended the claims to clarify the claimed invention. Applicants do so without prejudice to pursuing the original claims in another application. Applicants request that these rejections be withdrawn for the reasons set forth below.

The cited references, Cabelli and Chalmers et al. fail to render the claimed invention obvious. The amended independent claim 49 recites, *inter alia*, moving the magnetic particles from a first locus on the electromagnetic chip to a second locus on the

electromagnetic chip. The Cabelli and Chalmers et al. references do not report an element of the claims.

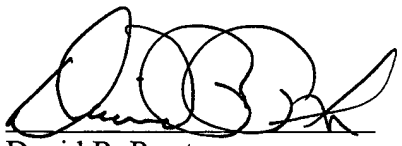
The cited references of Cabelli and Chalmers et al., either alone or in combination, fail to suggest, teach, or motivate moving the magnetic particles from a first locus on the electromagnetic chip to a second locus on the electromagnetic chip. Thus the cited references, either alone or in combination, do not teach elements of the claimed invention as filed or as amended.

For the foregoing reasons, Applicants submit that the claimed invention cannot be obvious over the cited references, and respectfully request that the rejection be withdrawn. Accordingly, Applicants request that this rejection be withdrawn.

Applicants respectfully submit that the claims are ready for examination and in condition for allowance. Please apply any charges not covered, or any credits, to **Deposit Account Number 501321** in the name of David R. Preston & Associates, having **Customer Number 24232**.

Respectfully submitted,

Date: Jan 4, 2006



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